



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
DIVISION OF OIL, GAS AND MINING
4241 State Office Building
Salt Lake City, Utah 84114

DIVISION OF
OIL, GAS & MINING

ANNUAL OPERATIONS AND PROGRESS REPORT

19 84

(To be filed for each mining operation at the end of each calendar year.)

OPERATOR: Geokinetics Inc. MINE NAME: Experimental Site #1
ADDRESS: P.O. Box 1168 PERMIT #: Act/047/002
Vernal, UT 84078 Sec. 2 T. 14S R. 22E SLEM
REPRESENTATIVE: William L. Sharrer DATE OF APPROVAL: March 23, 1979

(1) Section 40-8-15 and Rule M-8 of the Utah Mined Land Reclamation Act,
require each operator to include with this report an up-dated map and plan
prepared in accordance with Rule M-3, providing a detailed status of all
mining and reclamation activities which have occurred during the past year.

(2) The gross amount of materials moved during the year for this mining
operation was: Approximately 4.5 ac-ft. of topsoil was moved

The disposition of each type of material was: Three (3) ac-ft. of topsoil
was stockpiled with the additional 1.5 ac-ft. distributed over
disturbed sites prior to revegetation (Appendix A).

(3) Status of reclamation work.*

<u>Month</u>	<u>Number of acres</u>	<u>Type of Work Performed</u>	<u>Results (Revegetation Success)</u>
January			
February			
March			
April			
May	0.5	Rt #24 test plot (See Appendix B)	
June	1.5	clean-up, regrading, recontouring and soil stabilization - Rt. #26.	
July			
August			
September	4.0	Topsoil removal/placement	
October	0.5	Rt. #24 test plot (See Appendix B)	
November	10.0	Soil preparation, fertilizing and seeding	
December			

*The monthly status of reclamation work should include such items as clean-up, regrading, recontouring, soil preparation, seeding, etc., and may be outlined on a separate sheet if necessary.

A summary of reclamation work performed during 1983 has been attached.

SUMMARY OF MINING AND
RECLAMATION ACTIVITIES
FOR 1983

Research and development activity to complete the test program continued during 1983 under Geokinetics' cooperative agreement with the Department of Energy.

Mining activities at the site consisted primarily of constructing surface and underground facilities to operate Retorts #27 and #28 and the completion of the burn on Retort #26 (Appendix D). Approximately 13 acres of land was disturbed during this activity.

Retort #26, a 1-acre retort was ignited on July 9, 1982, operated for eight months, and shut down on February 22, 1983. Retorts #27 and #28 (each 2-acres in size) were blasted during 1982 and were ignited on August 11, 1983 and October 11, 1983, respectively. Each retort will burn for approximately 11 months.

Major improvements were made at the site facility to handle the 1983-84 program. A complete off gas cleanup plant was constructed to remove sulfur and ammonia from the off gases. A new evaporation pond was constructed, the power generating plant capacity was increased to a maximum of three megawatts, and the oil storage facilities were increased to a total of 27,000 barrels. A steam heated pipeline system was installed, eliminating use of trucks for on-site oil transport (Appendix D).

Reclamation activities during 1983 consisted of revegetating approximately 11 acres of disturbed land, including a 1-acre test plot (Retort #24) in cooperation with the U.S. Forest Service.

The U.S. Forest Service test plot is designed to yield information on alternative cultural methods and suitable herbaceous and shrub species for establishing a level of vegetative cover adequate to meet government reclamation requirements. This effort is an expansion of Geokinetics on-going revegetation cooperative program with the USFS. A copy of the study plan and both the spring and autumn study establishment reports are provided in Appendix B.

In addition, 10 acres of primarily retorted disturbed land was revegetated during October and November, 1983. A description of the methods utilized are given in Appendix C.